

**XP-002187982**

**AN - 1997-062307 [06]**

**AP - JP19950138453 19950512**

**CPY - NPEC**

**DC - A17 A23 F01**

**FS - CPI**

**IC - D01F1/10 ; D01F8/04 ; D01F8/06 ; D01F8/14**

**MC - A04-G01E A05-E02 A08-M09C A09-A01A A12-C03 A12-S05K F01-E07 F03-C F04-C**

**PA - (NPEC) NIPPON ESTER CO LTD**

**PN - JP8311716 A 19961126 DW199706 D01F8/04 004pp**

**PR - JP19950138453 19950512**

**XA - C1997-020585**

**XIC - D01F-001/10 ; D01F-008/04 ; D01F-008/06 ; D01F-008/14**

**AB - J08311716** The composite fibre comprises a blended product obtd by

blending a thermoplastic polymer A having pt. or softening pt. > 80 deg. C with a paraffin as capable of using latent heat owing to phase-change e.g melting and coagulation at a blend ratio of 3/7-7/3 by wt., covered with a thermoplastic polymer B having pts. of > 200 deg. C.

- USE - The fibre can be used for clothing.

- ADVANTAGE - The composite fibre has heat-absorbing and generating properties by change of human body temp. and circumferential temp..

- (Dwg.0/0)

**IW - HEAT ABSORB HEAT GENERATE COMPOSITE FIBRE CLOTHING COMPRISE BLEND**

**THERMOPLASTIC POLYMER PARAFFIN WAX COVER THERMOPLASTIC POLYMER**

**IKW - HEAT ABSORB HEAT GENERATE COMPOSITE FIBRE CLOTHING COMPRISE BLEND**

**THERMOPLASTIC POLYMER PARAFFIN WAX COVER THERMOPLASTIC POLYMER**

**NC - 001**

**OPD - 1995-05-12**

**ORD - 1996-11-26**

**PAW - (NPEC) NIPPON ESTER CO LTD**

**TI - Heat-absorbing and heat generating composite fibre for clothing -**

comprises blend of thermoplastic polymer and paraffin wax covered with further thermoplastic polymer

**A01 - [001] 018 ; G0033-R G0022 D01 D02 D51 D53 ; H0000 ; H0011-R ; P1150 ;**

- [002] 018 ; R00326 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D82 ; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83 ; H0000 ; P1150 ; P1161 ; P1343 ;

- [003] 018 ; G1365 G1343 G1310 G4024 D01 D60 F37 F35 E00 D11 D10 D50 D94 ; R07786 G1343 G1310 G4024 D01 D11 D10 D50 D60 D92 F37 F35 E00 E18 ; G4024-R D01 E18 E00 E28 ; G1069 G1025 G0997 D01 F28 F26 D11 D10 D50 D89 ; R00822 G1025 G0997 D01 D11 D10 D50 D82 F28 F26 ; R01422 G1047 G1025 G0997 D01 D11 D10 D50 D86 F28 F26 ; P1978-R P0839 D01 D50 D63 F41 ; H0022 H0011 ; H0033 H0011 ;

- [004] 018 ; B9999 B5629 B5572 ; N9999 N6202 N6177 ; N9999 N6699 N6655 ; Q9999 Q7056-R ; B9999 B5527 B5505 ; ND10 ; ND09 ; ND01 ; ND04 ;

- [005] 018 ; G3474 D01 D02 D50 D11 D10 D94 D93 ; A999 A748 ; S9999 S1376 ; B9999 B5607 B5572 ;

**A02 - [001] 018 ; P0635-R F70 D01 ; H0317 ; S9999 S1138 S1116 S1105 S1070**

PTO/SB/08A Ref. No.: **F5**  
Serial No.: 09/777,512  
Docket No.: OUTT-011/01US

- [002] 018 ; P0839-R F41 D01 D63 ; P0884 P1978 P0839 H0293 F41 D01 D11 D10 D19 D18 D31 D50 D63 D90 E21 E00 ; P0895 P1978 P0839 H0293 F41 D01 D11 D10 D19 D18 D31 D50 D63 D92 E21 E00 ; H0317 ; S9999 S1138 S1116 S1105 S1070 ;
- [003] 018 ; B9999 B5607 B5572 ; Q9999 Q7056-R ; B9999 B5527 B5505 ; ND10 ; ND09 ; ND01 ; ND04 ;